RECORD OF DECISION
CASPIAN TERN MANAGEMENT TO REDUCE PREDATION OF JUVENILE SALMONIDS IN THE COLUMBIA RIVER ESTUARY

I. SUMMARY

This Record of Decision (ROD) was prepared by the U.S. Army Corps of Engineers, Portland District (Corps) in compliance with the agency decision-making requirements of the National Environmental Policy Act of 1969, as amended and implementing regulations (NEPA; 42 U.S.C. §§ 4321 *et seq.*, 40 C.F.R. §§ 1500 *et seq.*). The purpose of this ROD is to document the Corps' decision to adopt the U.S. Fish and Wildlife Service's (Service) Final Environmental Impact Statement (EIS) for *Caspian Tern Management to Reduce Predation of Juvenile Salmonids in the Columbia River Estuary and the selection of Alternative C of the Final EIS, as modified herein, as the* Corps' environmentally preferred management alternative to reduce the predation of juvenile salmonids in the Columbia River Estuary. Alternative C, with the modification described herein, has also been selected by the Service in their ROD. The Service's EIS was prepared in cooperation with the Corps and NOAA Fisheries. The Corps has independently reviewed the EIS and has concluded that our comments and suggestions submitted during the EIS process have been satisfied.

This ROD includes: (1) a brief narrative describing the background relating to Caspian Tern predation of salmonids in the Columbia River estuary; (2) a description of the Corp's selected alternative; and (3) a brief description of other alternatives considered including the environmentally preferred alternative; (4) the rationale for the selection of alternative C as modified herein; (5) a brief summary of alternatives considered, including measures to minimize environmental harm (40 C.F.R. 1505.2(b)); and (6) a description of public involvement during the EIS process, including an explanation of changes made between the Draft and Final EIS.

Documents used in preparation of this ROD include all documents associated with: the Draft EIS and Final EIS for *Caspian Tern Management to Reduce Predation of Juvenile Salmonids in the Columbia River Estuary* (Service 2004 and 2005a, respectively); the Service and the Corps' ESA biological assessments on the proposed action (Service 2005b, 2005c); and Service and NOAA Fisheries Biological Opinions (BO) on the proposed action (Service 2005d, NMFS 2006).

II. BACKGROUND

Increases in the number of Caspian terns (*Sterna caspia*) nesting in the Columbia River estuary over the past decades led to significant concerns over their potential impact on the recovery of threatened and endangered Columbia River salmonids (salmon and steelhead). These concerns culminated in the issuance of a biological opinion (BiOp) in 1999 by NOAA Fisheries which required the Corps to take steps to curtail Caspian tern nesting at Rice Island in the Columbia River estuary. The Final EIS and Service's and Corps' RODs are requirements of a Settlement Agreement arising out of litigation filed by the National Audubon Society and others (see below) that sought to enjoin actions by the Corps in response to the 1999 BiOp to address long-term management of Caspian terns in the Columbia River estuary.

In 1999, NOAA Fisheries issued a BiOp (NOAA Fisheries 1999) for the Corps of Engineers' Columbia River Channel Operation and Maintenance Program requiring the Corps to preclude Caspian tern nesting on Rice Island (located in the upper estuary), by habitat management action or hazing for the life of the project to decrease predation of juvenile salmonids by Caspian terns. In the same year, the Corps initiated a pilot project to relocate the Rice Island tern colony to East Sand Island, located near the mouth of the estuary, where marine fish (i.e., non-salmonids) were abundant and available to foraging terns (U.S. Army Corps of Engineers 1999). In 2000, the Corps proposed to prevent all Caspian tern nesting on Rice Island while completing the relocation of all Caspian terns to East Sand Island (U.S. Army Corps of Engineers 2000). The Service issued a Migratory Bird Treaty Act (MBTA) permit authorizing the take of tern eggs and to aid in the prevention of tern nesting on Rice Island.

As a result of the proposed actions in 2000, Seattle Audubon, National Audubon, American Bird Conservancy, and Defenders of Wildlife filed a lawsuit against the Corps and Service. The four groups alleged in the suit that compliance with NEPA was not sufficient for the proposed action of relocating terns from Rice Island to East Sand Island. Furthermore, the groups objected to the Service's issuance of the MBTA permit authorizing the potential take of tern eggs on Rice Island. The plaintiffs prevailed in their lawsuit before the United States District Court, Western District, and an injunction was granted on August 7, 2001.

In 2002, all parties reached a Settlement Agreement approved by the Court. Terms of the agreement required the Service (lead agency), the Corps, and NOAA Fisheries to prepare an Environmental Impact Statement addressing long-term management of terns in the Columbia River estuary. Interim management measures were provided in the 2002 Settlement Agreement that allowed Caspian tern habitat management and research activities to continue in the Columbia River estuary pending issuance of an EIS and ROD. Since that time and due to these interim actions, Caspian tern nesting has now been precluded at the upper estuary locations of Rice Island, Miller Sands, and Pillar Rock. From 2001 to 2005 the average number of Caspian terns nesting at East Sand Island was approximately 9,108 pairs (Roby et al. 2006). The 2002 Settlement Agreement also required the Service and NOAA Fisheries to develop and publish three technical reports. The reports published were: (1) Status Assessment and Conservation Recommendations for the Caspian Tern in North America (Shuford and Craig 2002), (2) Caspian Tern Predation on Salmon and Steelhead Smolts in the Columbia River Estuary (NOAA Fisheries 2002), and (3) A Review of Caspian Tern Nesting Habitat: A Feasibility Assessment of Management Opportunities in the U.S. Fish and Wildlife Service Pacific Region (Seto et al. 2003).

III. Decision

Based on the evaluation and comparison of alternatives and associated environmental consequences as provided in the Final EIS, Alternative C: Redistribution of East Sand Island Tern Colony was initially identified by the Service as the environmentally preferred alternative. However, the Service has identified a modified version of Alternative C based on review of the NOAA Fisheries BiOp and concerns regarding the potential magnitude of tern predation on listed Puget Sound Chinook and Hood Canal summer-run chum salmon. The Corps concurs

with the selection by the Service of a modified version of Alternative C as the environmentally preferred alternative.

The modification of Alternative C is a component analyzed in the No Action Alternative (Alternative A) of the Draft and Final EIS. The modification is the removal of the Dungeness National Wildlife Refuge (NWR), Washington management site from the list of sites outside the Columbia River estuary to be improved for Caspian tern habitat included in Alternative C. Elimination of this site also results in a smaller reduction of tern nesting habitat on East Sand Island. As requested by NOAA Fisheries, the ESA-consultation process was not initiated until a Preferred Alternative was identified in the final EIS. NOAA Fisheries' concerns regarding predation on listed species, described above, prompted the Service and Corps to modify Alternative C to include this component of Alternative A. There are no other differences in the selected alternative, modified Alternative C, as compared to Alternative C.

The environmental consequences for modified Alternative C remain the same as Alternative C, except for effects to salmonids in waters surrounding Dungeness NWR and in the Columbia River estuary. There will be no effects to salmonids in waters surrounding Dungeness NWR in modified Alternative C (as described in Alternative A). However, since a larger area of tern nesting habitat would remain on East Sand Island, and thus, potentially a larger number of nesting terns would remain in the estuary, a higher take numerically of Columbia River juvenile salmonids would occur than analyzed in Alternative C, but lower than that described in Alternative A. The percent change in population growth rates for the four Columbia River steelhead populations would remain greater than one percent under Alternative C and the modified Alternative C, except for the Lower Columbia River steelhead ESU which has an estimated 0.9 percent change in their population growth rate at the higher Caspian tern population estimate under modified Alternative C.

Adaptive management will be implemented throughout the course of the project. Monitoring and adapting management actions will be implemented as necessary dependent upon how salmonids and terns respond to implementation of the selected alternative.

Key components of the modified Alternative C include:

- Create new or enhance existing tern nesting habitat in Oregon and California to ensure a suitable network of sites is available for nesting terns on a regional scale. This should encourage the redistribution of a portion of the Caspian tern colony from East Sand Island into these areas. A total of approximately 7 acres of habitat will be managed for nesting terns (creation or enhancement) at Summer, Crump, and Fern Ridge lakes, Oregon; and San Francisco Bay (Brooks Island, Hayward Regional Shoreline, and Don Edwards NWR), California.

- The current 6-acre tern nesting site on East Sand Island will gradually be reduced as tern nesting habitat is created or enhanced at alternative regional locations. Ultimately, the tern nesting site on East Sand Island will be reduced to 1.5 to 2 acres. Habitat enhancement in the region and reduction in habitat on East Sand Island would be phased in at a 2:1 ratio. The reduction in habitat at East Sand Island is not contingent upon Caspian terns occupying the

managed habitat developed for them at alternative locations. Habitat reduction at East Sand Island would be accomplished by reducing the acreage subject to annual maintenance actions in spring, thus allowing for vegetation succession to render the unmanaged acreage unsuitable for Caspian tern nesting activities. Attainment of the acreage objective for the modified preferred alternative should result in an estimated Caspian tern population level of approximately 3,125 – 4,375 pairs at East Sand Island.

The Service will issue a Depredation Permit to the Corps, under the authority of the Migratory Bird Treaty Act (1918, as amended) and its regulations, for the collection of Caspian tern eggs at the upper estuary islands in the Columbia River (e.g., Rice Island, Miller Sands Spit, and Pillar Rock Island) if early season hazing activities fail to prevent terns from nesting at these locations. To date, hazing actions have been sufficient to discourage tern nesting at these upper estuary islands. As described in the Final EIS, this permit would assist in preventing the establishment of new tern colonies in the upper estuary where tern predation on juvenile salmonids is known to be high.

The Service will also implement a regional tern population monitoring program upon initial implementation of the ROD through 3 years after the specified habitat acreage (1.5 to 2 acres) has been attained on East Sand Island. Colony monitoring and evaluation efforts at East Sand Island and at managed alternative sites would be undertaken by the Corps.

odified Alternative C will be implemented with the following conditions:

Modified Alternative C will be primarily implemented by the Corps, with support from the Service.

Specific implementation responsibilities of the Service include issuance of Migratory Bird Treaty Act permits and a regional tern population monitoring program, as described above.

Management of the Caspian tern colony in the Columbia River estuary is identified as an element of the proposed action in the Final Updated Proposed Action for the Federal Columbia River Power System Biological Opinion (November 2004-under remand). Implementation responsibilities for East Sand Island will be held by the Corps.

Anticipated timeframe for completion of the selected alternative is 2010 - 2015.

Implementation of the selected alternative is dependent upon available funding and/or authority for each agency involved.

Adaptive management would be undertaken such that tern nesting habitat acreage on East Sand Island could be reduced to 1 to 1.5 acres (as described in Alternative C) if alternative site(s) is/are identified in the future. The criteria for alternative site selection are described in Appendix G of the final EIS. If a new site that has not already been analyzed in the Final EIS is identified in the future, a site specific NEPA document would be prepared for that site. Any permitting associated with management of that site would be included in that effort.

I have reviewed the Final Environmental Impact Statement for Caspian Tern Management to Reduce Predation of Juvenile Salmonids in the Columbia River Estuary, January 2005, as well as correspondence received in response to the public coordination of this document. I find the preferred alternative recommended by the cooperating Federal agencies, with the modifications described herein, to be technically feasible, in compliance with environmental statutes, and in the public interest. The modification to the preferred alternative entails eliminating Dungeness National Wildlife Refuge from the list of alternative Caspian tern habitat sites to be developed, due to NMFS concerns for adverse impacts to Federally-listed Puget Sound Chinook and Hood Canal summer-run chum salmon.

Thus, I approve adoption of the Service's FEIS and implementation, construction, operation, monitoring and evaluation of the modified preferred alternative, as described herein, in concert with other cooperating Federal agencies. The implementation actions for the modified preferred alternative to be carried out by the U.S. Army Corps of Engineers are contingent upon, and subject to, Congressional authorization and appropriations.

The modified preferred alternative is selected based on the reduction of Caspian tern predation in the Columbia River estuary on juvenile salmonids to a level that could increase salmonid population growth rates, thus aiding recovery of listed salmonid stocks in the Columbia River Basin. The selected alternative is based upon the National Marine Fisheries Service's analysis of population growth rates for steelhead evolutionary significant units (ESU's). The estimated change in growth rate would exceed one percent for the Snake River, Upper Columbia River and Middle Columbia River steelhead ESU's at an East Sand Island tern population level of 4,375 pairs. The Lower Columbia River steelhead ESU is estimated to attain an increase in their population growth rate greater than one percent at a tern population level of 3,125 pairs, but slightly less than one percent at 4,375 pairs. Other Columbia River salmonid ESU's are also anticipated to benefit, although the extent cannot be demonstrated. Additionally, the modified preferred alternative will minimize any possible negative affect to the Pacific Coast regional Caspian tern population by providing alternative, managed nesting habitat at locations outside the Columbia River estuary to encourage their redistribution.

The proposed action will include monitoring and an adaptive management plan if Caspian tern response to the proposed management actions does not meet the specified objectives. Adaptive management would be utilized to effect change in the implementation, operation, and/or maintenance of the modified preferred alternative as determined necessary by the cooperating Federal agencies. Adaptive management would also be used to facilitate attainment of the original Alternate C objective of providing only 1.0 – 1.5 acres of Caspian tern nesting habitat at East Sand Island, should terns initiate nesting on a suitable site in the future where management actions can be implemented to sustain the colony.

Ownership of East Sand Island will remain with the Corps of Engineers. The Corps will continue to annually maintain Caspian tern habitat on East Sand Island.

IV. ALTERNATIVES CONSIDERED

The Draft and Final EIS evaluated a status-quo (no action) alternative, two action alternatives, and a no management alternative. The no management alternative was required for analysis under the Settlement Agreement.

Alternative A – No Action (Current Management Program)

The "No Action" alternative assumes no change from the current management program on East Sand Island, and is the baseline from which to compare the other alternatives. Under this alternative, 6 acres of nesting habitat would be prepared annually for Caspian terns on East Sand Island.

Alternative B - No Management

Under this alternative, no management actions would occur on East Sand Island. The current tern nesting habitat on East Sand Island would most likely become fully vegetated within three years and unusable by terns.

Alternative C and Modified Alternative C - Redistribution of East Sand Island Tern Colony - Preferred Alternative

Alternative C, the Preferred Alternative, would reduce tern predation on juvenile salmonids in the Columbia River estuary by managing habitat to redistribute the tern colony on East Sand Island throughout the Pacific Coast/Western region. Initially, this redistribution would have been achieved by creating new or enhanced tern nesting habitat in Washington, Oregon, and California while reducing the tern nesting site on East Sand Island to 1 to 1.5 acres. In response to NOAA Fisheries' concerns about potential impacts to ESA-listed salmonids in Washington, Alternative C was modified by removing the Dungeness NWR, Washington management site from the proposed action. Modified Alternative C thus became the Preferred Alternative. To ensure a suitable network of sites is available for terns on a regional scale, the selected alternative includes the replacement of twice the amount of nesting habitat that would be lost on East Sand Island. Thus, as a result of removing the Dungeness NWR site from the proposed action, the tern nesting site on East Sand Island would have a higher nesting habitat acreage objective (1.5 to 2 acres instead of 1 to 1.5 acres).

Habitat enhancement in the region and reduction in habitat on East Sand Island would be phased in at a 2:1 ratio. The current 6-acre tern nesting site on East Sand Island will gradually be reduced as tern nesting habitat is created or enhanced at alternative regional locations. The modified Alternative C includes approximately 7 (instead of the initial 8) acres of managed habitat that will be enhanced in Oregon and California. The six management sites in this modified alternative include Summer, Crump, and Fern Ridge lakes, Oregon; and San Francisco Bay (3 sites), California. Adaptive management actions would be undertaken such that tern nesting habitat on East Sand Island could be reduced to 1 to 1.5 acres as described in the original Alternative C if in the future, terns initiate nesting on a suitable site(s) (as described in Appendix G in the final EIS) and appropriate permit and NEPA compliance are met.

Alternative D - Redistribution and Lethal Control of East Sand Island Tern Colony

Similar to the original Alternative C, tern nesting habitat and colony size on East Sand Island proposed in this alternative would be reduced to decrease tern predation on juvenile salmonids and encourage redistribution of the large concentrated tern colony to other nesting sites within the Pacific Coast region. Approximately 8 acres from sites within the Pacific Coast region would be managed as potential Caspian tern nesting sites to replace the habitat lost on East Sand Island to ensure a network of suitable nesting habitat is available to displaced terns. Reduction in tern nesting habitat on East Sand Island would be phased in as habitat at alternate sites is developed at a 2:1 ratio (see description in Alternative C).

Unlike Alternative C, if development of potential nesting habitat elsewhere in the region and subsequent habitat reduction on East Sand Island is not sufficient to reduce the colony size by 2008, a lethal control program would be used in conjunction with these measures to achieve the proposed range of nesting terns (approximately 2,500 to 3,125 pairs in the estuary). The lethal control program would kill up to 50 percent of breeding adult terns each year beginning in 2008. Methods for killing adults could consist of euthanasia of terns after capturing them with a rocket net, and use of shotguns to remove individual terns. The actual number of terns that would be killed under this alternative would depend on the success of redistributing a majority of the colony to other sites in the region. If the entire colony nested in the smaller acreage that would remain on East Sand Island, a substantial number of terns would need to be killed. If the colony was partially reduced through habitat reduction, a lower number of terns would be killed (see Chapter 4, section 4.2.1.4 for projections of the number of terns that would need to be killed under a lethal control program).

Environmentally Preferred Alternative

The modified Alternative C was identified as the Environmentally Preferred Alternative. This alternative is most likely to result in the greatest overall (net) environmental benefits to both ESA-listed Columbia River salmonids and the regional Caspian tern population. Although Alternative A retains the risk of a catastrophic event potentially affecting the East Sand Island tern colony, it would primarily result in a benefit to Caspian terns because the current nesting colony on East Sand Island would not be disturbed. However, it would also result in the least benefit to ESA-listed Columbia River salmonids. Conversely, Alternative B would result in the highest benefit to ESA-listed Columbia River salmonids, with the least benefit to Caspian terns. Alternative D would lead to lethal removal annually of an unknown number of Caspian terns. Thus, a modified Alternative C is the alternative that would most likely achieve the project purposes of reducing tern predation on ESA-listed Columbia River salmonids, while ensuring the long-term conservation of Caspian terns by redistributing the concentrated colony throughout the region.

V. Rationale for Decision

The Corps made the decision to implement the modified Preferred Alternative, contingent upon, and subject to, Congressional authorization and appropriations, based on review and consideration of impacts identified in the Final EIS; public comments received throughout the

process; and the modified alternatives' ability to meet the action purpose, comply with the Federal Endangered Species Act and Migratory Bird Treaty Act, and assist in recovery of listed Columbia River salmonid ESUs

Ability to Meet Purpose

Completion of this EIS and ROD in accordance with the 2002 Settlement Agreement has resulted in a Caspian Tern management plan (Alternative C, with modifications) that will reduce "resource management conflicts with listed salmonids while ensuring the conservation of terns in the Pacific Coast/Western region," as described in the Purpose of and Need for Action section the final EIS, including retention of a Caspian tern colony in the Columbia River estuary.

The proposed habitat acreage on East Sand Island (1.5 to 2 acres) identified in modified Alternative C is selected to reduce tern predation in the Columbia River estuary on juvenile salmonids to a level that would increase salmonid population growth rates. NOAA Fisheries identified an increase in population growth rate of one percent or greater as an objective with respect to management of Caspian terns in the estuary. NOAA Fisheries conducted an analysis using a life cycle model and tern predation rates to estimate the impact of tern predation on the population growth rate of various Evolutionary Significant Units (ESUs) of Columbia River Basin steelhead. Steelhead were the focus of this analysis because they are the ESUs most affected by tern predation in the Columbia River estuary. Thus, estimates of the potential benefits to reducing tern predation are the greatest for steelhead but other Columbia River salmonid ESUs subject to tern predation would likely also benefit.

The NOAA Fisheries analysis estimated that a reduction in the tern colony to approximately 3,125 nesting pairs could result in a one percent or greater increase in population growth rate for all Columbia River Basin steelhead ESUs. Because of uncertainties in the model, a more conservative range of nesting pairs (approximately 2,500 to 3,125) on East Sand Island was identified for Alternative C to provide greater certainty of an increase in population growth rate for all Columbia River Basin steelhead ESUs. However, because NOAA Fisheries' concerns on potential impact to Puget Sound Chinook and Hood Canal summer-run chum, the Dungeness NWR, Washington site was removed from the proposed action. Since a smaller amount of alternative habitat would be enhanced or created elsewhere in the region, a larger amount of acreage and thus, number of terns would remain on East Sand Island (approximately 3,125 to 4,375 pairs, using an average nesting density of 0.55 pairs/square meters). Thus, the potential increase in population growth rate for one of the steelhead ESUs (Lower Columbia River ESU) in the NOAA Fisheries analysis may not reach one percent if the tern colony size reached its upper limit (4,375 pairs). However, adaptive management would be undertaken such that tern nesting habitat on East Sand Island could be reduced to 1 to 1.5 acres as described in the original Alternative C if in the future, terns initiate nesting on a suitable site(s) (as described in Appendix G of the final EIS) and permit and NEPA compliance are met.

Compliance with the Federal Endangered Species Act

The Service and Corps have completed consultation under Section 7 of the Federal Endangered Species Act (ESA) with the Service and NOAA Fisheries, addressing potential effects to those

listed species that may be affected by the Selected Alternative (modified Alternative C). As a result of these formal and informal consultations, it was determined that the impacts from the Selected Alternative were not likely to jeopardize the continued existence of any listed species or to destroy or adversely modify associated designated critical habitat.

Promoting Recovery of Listed Species

Modified Alternative C best meets statutory criteria for promoting recovery of endangered species in their natural ecosystems, a principle aim of the ESA. The Corps seeks to increase survival and assist in the recovery of multiple ESA-listed salmonids that inhabit the Columbia River Basin including Lower Columbia River steelhead, Middle Columbia River steelhead, Upper Columbia River steelhead, and Snake River steelhead.

Key Issues Identified

The following issues were identified during public scoping and considered during alternative creation and evaluation:

1. Concerns that an analysis of tern predation conducted prior to the EIS needed to be more rigorous and should use peer-reviewed science in demonstrating effects of tern predation on the recovery of ESA-listed Columbia River salmonids.

   NOAA Fisheries completed a second analysis of the effects of tern predation on four Columbia River steelhead ESUs. This analysis is an appendix in the final EIS and supported the development of management alternatives and associated effects analysis. The NOAA Fisheries analysis was submitted to the Recovery Science Review Panel for peer review in early 2004 to ensure that the analysis was more rigorous and based on peer-reviewed science as compared to the first predation analysis report completed by NOAA Fisheries in 2002.

2. Concerns for declining salmonids in the Columbia River.

   Three of the four alternatives analyzed in the final EIS include management actions that could result in benefits to Columbia River steelhead. NOAA Fisheries determined that while other salmonids are eaten by terns, steelhead appear to be most affected by tern predation. Based on the NOAA Fisheries predation analysis (NOAA Fisheries 2004), population growth rate increases for four Columbia River steelhead ESUs could occur within one generation (4 to 5 years) after the specified habitat acreage on East Sand Island has been attained. Management actions that would protect the most vulnerable stocks (i.e., steelhead) could also benefit other ESA-listed stocks in the Columbia River Basin.

3. Concerns for the concentration of terns at one site (on East Sand Island).

   Alternatives C and D are the only two alternatives that would reduce the size of the tern colony on East Sand Island, decreasing potential losses from catastrophic events while maintaining a substantial Caspian tern colony in the Columbia River estuary. Alternative D, however, potentially includes some amount of lethal control, potentially negatively affecting

the regional tern population. Thus, Alternative C (including the modified Alternative C) is the only alternative considered that would reduce the concerns associated with the concentrated colony on East Sand Island while ensuring conservation of terns throughout the region. This will be achieved by managing nesting habitat in Oregon and California specifically for Caspian terns and reducing the nesting habitat on East Sand Island to accommodate a smaller number of nesting terns (i.e., 3,125 to 4,375 pairs).

VI. SUMMARY

Alternative A, the status-quo alternative, was not a feasible alternative because it would not meet the purpose of the action as described in the EIS (i.e., reducing resource management conflicts with Columbia River Basin ESA-listed salmonids). Alternative B (no action) was not chosen because it also would not fall within the guiding principles as defined in the EIS (i.e., "ensure terns remain a viable and integral part of the estuarine" ecosystem, including the Columbia River estuary). Alternative D was not chosen because, although it would reduce resource conflicts with Columbia River Basin ESA-listed salmonids, it would not meet the second purpose of ensuring the conservation of terns in the Pacific Coast/Western region. The Selected Alternative (Alternative C with modifications) provides both the reduction of resource management conflicts with Columbia River Basin ESA-listed salmonids while ensuring the conservation of Caspian terns throughout the Pacific Coast/Western region.

Measures to Minimize Environmental Harm

All practicable measures to avoid or minimize environmental impacts that could result from implementation of modified Alternative C will be incorporated into the project. Modification of Alternative C was predicated upon minimization of potential harm to Puget Sound Chinook and Hood Canal Summer-run Chum salmon. Implementation of the proposed action will be phased in such that developed alternative Caspian tern nesting habitat will be available prior to a reduction in their nesting habitat on East Sand Island. A passive measure, allowance of vegetation succession, will be utilized to reduce habitat availability at East Sand Island. The proposed action includes monitoring and an adaptive management plan if Caspian tern response to the proposed management actions does not meet the specified objectives. Long-term monitoring of the regional Caspian tern population and short-term monitoring of the East Sand Island and managed alternative habitats will be implemented to assess the action. Adaptive management would be utilized to effect change in the implementation, operation, and/or maintenance of the modified preferred alternative as determined necessary by the cooperating Federal agencies.

VII. PUBLIC INVOLVEMENT

Public comment has been requested, considered, and incorporated throughout the planning process in numerous ways. Public outreach included public scoping meetings, planning update mailings, a project website, and Federal Register notices.

On April 7, 2003, the Service, in cooperation with NOAA Fisheries and the Corps, published a Notice of Intent (68 FR 16826) in the Federal Register to prepare an EIS for tern management in

the Columbia River estuary. The notice also solicited public participation in the scoping process. A total of 116 comment letters were received.

On July 23, 2004, the Service, in cooperation with the Corps and NOAA Fisheries, published a Notice of Availability (69 FR 44053) of the Draft EIS (DEIS) and a 60-day public comment period in the Federal Register. Notices were also sent to more than 450 people that were either on our project mailing list or recommended for notification. The notice announced the availability of the DEIS, listed the opening and closing dates for the comment period, gave locations of three Federal websites and public libraries where copies of the document could be viewed, and provided an option for obtaining hard copies or CDs of the DEIS. The agencies received 37 comment letters on the DEIS. All substantive issues raised in the comments on the DEIS have been addressed through revisions incorporated into the final EIS text or responses contained in Appendix J of the final EIS.

A Notice of Availability (70 FR 02651) of the final EIS was published in the Federal Register on January 14, 2005. The agencies received three comment letters in addition to two brief emails about the final EIS. The comments received on the final EIS did not raise new issues or result in changes to the analysis or to the preferred alternative in the final EIS.

VII. IMPLEMENTATION

The Corps' implementation of the selected alternative is contingent upon, and subject to, Congressional authorization and appropriations. In addition, site specific actions will be subject to further analysis and evaluation to ensure compliance with NEPA and other applicable regulatory and statutory requirements.

22 Nov 06

Gregg F. Martin
Brigadier General, US Army
Division Commander

Date

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